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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,081	06/01/2001	Mitchell T. Berg	29820.13	3834
500	7590	01/27/2006	EXAMINER	
SEED INTELLECTUAL PROPERTY LAW GROUP PLLC 701 FIFTH AVE SUITE 6300 SEATTLE, WA 98104-7092			DUONG, OANH L	
			ART UNIT	PAPER NUMBER
			2155	

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/872,081	BERG, MITCHELL T.	
	Examiner	Art Unit	
	Oanh Duong	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/26/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/06/05; 09/06/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-41 are presented for examination.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “execute protocol stack instructions to form a data portion of a data packet” and “migrate an existing session” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 25 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
4. Claim 25 is not limited to tangible embodiments. The claim recited "A computer-readable medium...comprising..." is nonstatutory. In view of dependent claim 29, the medium is not limited to tangible embodiments (i.e., computer-readable medium is a data transmission medium transmitting a generated data signal), instead of being defined as including tangible embodiments (i.e., a computer readable storage medium such as memory device, storage medium, etc.). As such, the claim is not limited to statutory subject matter and is therefore nonstatutory.

To overcome this type of 101 rejection, examiner suggests applicants to amend the claim to include computer readable storage medium to store computer codes (for example, the claim should be amended as "A computer readable storage medium embodying computer program codes, when executed by computer, to perform a method comprising:" see MPEP 2106 section V. DETERMINE WHETHER THE CLAIMED

INVENTION COMPLIES WITH 35 U.S.C. 101 under subsection 1. Nonstatutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5-15, 17- 32, and 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masters (US 6,374,300 B2) in view of Muller et al. (Muller) (US 6,453,360 B1)

Regarding claim 1, Master teaches an information processing system (Fig. 6A), comprising:

A first computing device (i.e., server array controller 118) configured to:

receive first information that has been formed according to application software instructions (i.e., the selected node server generates an HTTP response and provides the generated HTTP response to the server array controller 118) [see col. 12 lines 41-44];

independent of the application software instructions, form second information for causing a second computing device to perform an operation (i.e., server array controller 118 rewrites the data packet(s) containing the HTTP

response so that (HTTP) Cookie (or HTTP session identifier) information identifying the node server selected to provide access to the requested resources can be inserted into the data packet) [see col. 12 lines 44-48];

in response to receiving the first information, forming a packet that includes at least the first and second information (i.e., provides the generated HTTP response to the server array controller 118...where the server array controller 118 rewrites the data packet(s) containing the HTTP response so that Cookie information identifying the node server selected to provide access to the requested resources can be inserted into the data packet) [col. 12 lines 44-48];

outputting the packet to the second computer (i.e., the server array controller 118 provides to the client 10 the rewrite data packet that includes the HTTP response and the inserted Cookie information) [see col. 12 lines];

Masters does not explicitly teach executing the protocol stack instructions to form a data portion of a packet.

Muller teaches executing the protocol stack instructions to form a data portion of a packet (i.e., each data portion is processed/formed through a protocol stack. During this processing multiple protocol headers (e.g., TCP, IP, Ethernet) are added to the data portion, col. 2 lines 19-33 and col. 15 lines 1-19).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have utilized the step of executing the protocol stack instructions to form a data portion of packet of Muller in the process of forming a packet in Masters because such executing the protocol stack instructions to form a data portion

of a data packet would enable protocol headers to be processed by a processor located on the server array controller (or computing device, or NIC), and the higher layer processing which must be performed by the selected node server to be simplified. Thus, the performance of information processing system would be improved.

Regarding claim 2, Master does not explicitly teach executing the protocol stack instruction for forming the packet in accordance with a network protocol. Muller teaches in response to receiving the first information, executing the instructions for forming the packet in accordance with a network protocol (i.e., the processing enhancements discussed above (e.g., re-assembling data, batch processing packet headers, distributing protocol stack processing) are possible for packets received from network that are formatted according to one or more pre-selected protocol...process packets using one of several protocol stacks compatible with the Internet) [Muller, see col. 12 lines 37-49). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have utilized the step of executing the protocol stack instructions to process a packet of Muller in the process of forming a packet (or response) in Masters because such executing the protocol stack instructions to process a packet would enable protocol headers to be processed by a processor located on the server array controller (or computing device, or NIC), and the higher layer processing which must be performed by the selected node server to be simplified. Thus, the performance of information processing system would be improved.

Regarding claim 3, Master-Muller teaches the network protocol is TCP/IP (i.e., TCP/IP handshake is performed between the client 10 and the server array controller 118) [Master, page 7 paragraph 84].

Regarding claim 5, Master-Muller teaches outputting the packet to the second computing device (i.e., client 10) through a network in accordance with the network protocol (i.e., provides to the client 10 the rewritten data packet that includes the HTTP response and the inserted Cookie information) [Master, Fig. 1A, page 7 paragraph 85].

Regarding claim 6, Master-Muller teaches the network is a global computer network (i.e., a wide area network such as Internet) [Master, page 8 paragraph 96].

Regarding claim 7, Master-Muller teaches the network is an IP network (i.e., a wide area network such as Internet) [Master, page 8 paragraph 96].

Regarding claim 8, Master teaches in response to receiving the first information, executing the instructions for forming the packet and the data portion including the first and second information (i.e., controller inserts cookie information identifying server in header of HTTP response and rewrite data packet for HTTP response) [Fig. 6A, block 238]. Masters does not explicitly teach executing the protocol stack instructions to form a packet. However, Muller teaches executing the protocol stack instructions to process a packet (including a header portion and data portion, and header including at least one

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header, FIG. 2) (i.e., INC 100 is therefore configured to process packets using one of several protocol stacks compatible with Internet) [see col. 11 lines 53-54 and col. 12 lines 37-45]. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have utilized the step of executing the protocol stack instructions to process a packet of Muller in the process of forming a packet in Masters because such executing the protocol stack instructions to process a packet would enable protocol headers to be processed by a processor located on the server array controller (or computing device, or NIC), and the higher layer processing which must be performed by the selected node server to be simplified. Thus, the performance of information processing system would be improved.

Regarding claim 9, Master-Muller teaches the second device is a client computing device (i.e., client 10) [Master, Fig. 1, col. 6 lines 34-46].

Regarding claim 10, Master-Muller teaches the operation including maintaining a session (i.e., the HTTP request along with the Cookie is transmitted from the client 10 to the server array controller) [Masters, see col. 12 lines 61-63].

Regarding claim 11, Master-Muller teaches maintaining a session by addressing a subsequent packet to the first computing device (i.e., the HTTP request along with the Cookie is transmitted from the client 10 to the server array controller) [Masters, see col. 12 lines 61-63].

Regarding claim 12, Master-Muller teaches the operation includes modifying state information [Masters, col. 12 line 64-col. 13 line 24].

Regarding claim 13, Master teaches a method performed by a first computing device (i.e., server array controller 118, Fig. 1A) of an information processing system (Fig. 6A), the method comprising:

receiving first information that has been formed according to application software instructions (i.e., the selected node server generates an HTTP response and provides the generated HTTP response to the server array controller 118) [see col. 12 lines 41-44];

independent of the application software instructions, forming a second information for causing a second computing device to perform an operation (i.e., server array controller 118 rewrites the data packet(s) containing the HTTP response so that (HTTP) Cookie (or HTTP session identifier) information identifying the node server selected to provide access to the requested resources can be inserted into the data packet) [see col. 12 lines 44-48];

in response to receiving the first information, forming a packet include at least the first and second information (i.e., provides the generated HTTP response to the server array controller 118...where the server array controller 118 rewrites the data packet(s) containing the HTTP response so that Cookie

information identifying the node server selected to provide access to the requested resources can be inserted into the data packet) [col. 12 lines 44-48];

outputting the packet to the second computer (i.e., the server array controller 118 provides to the client 10 the rewrite data packet that includes the HTTP response and the inserted Cookie information) [see col. 12 lines];

Masters does not explicitly teach executing the protocol stack instructions to form a data portion of a packet.

Muller teaches executing the protocol stack instructions to form a data portion of a packet (i.e., each data portion is processed/formed through a protocol stack. During this processing multiple protocol headers (e.g., TCP, IP, Ethernet) are added to the data portion, col. 2 lines 19-33 and col. 15 lines 1-19).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have utilized the step of executing the protocol stack instructions to process a packet of Muller in the process of forming a packet in Masters because such executing the protocol stack instructions to form a data portion of a packet would enable protocol headers to be processed by a processor located on the server array controller (or computing device, or NIC), and the higher layer processing which must be performed by the selected node server to be simplified. Thus, the performance of information processing system would be improved.

Regarding claim 14, Master does not explicitly teach executing the protocol stack instruction for forming the packet in accordance with a network protocol. Muller teaches

in response to receiving the first information, executing the instructions for forming the packet in accordance with a network protocol (i.e., the processing enhancements discussed above (e.g., re-assembling data, batch processing packet headers, distributing protocol stack processing) are possible for packets received from network that are formatted according to one or more pre-selected protocol...process packets using one of several protocol stacks compatible with the Internet) [Muller, see col. 12 lines 37-49]. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have utilized the step of executing the protocol stack instructions to process a packet of Muller in the process of forming a packet (or response) in Masters because such executing the protocol stack instructions to process a packet would enable protocol headers to be processed by a processor located on the server array controller (or computing device, or NIC), and the higher layer processing which must be performed by the selected node server to be simplified. Thus, the performance of information processing system would be improved.

Regarding claim 15, Master-Muller teaches the network protocol is TCP/IP (i.e., TCP/IP handshake is performed between the client 10 and the server array controller 118) [Master, page 7 paragraph 84].

Regarding claim 17, Master-Muller teaches outputting the packet to the second computing device (i.e., client 10) through a network in accordance with the network

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protocol (i.e., provides to the client 10 the rewritten data packet that includes the HTTP response and the inserted Cookie information) [Master, Fig. 1A, page 7 paragraph 85].

Regarding claim 18, Master-Muller teaches the network is a global computer network (i.e., a wide area network such as Internet) [Master, page 8 paragraph 96].

Regarding claim 19, Master-Muller teaches the network is an IP network (i.e., a wide area network such as Internet) [Master, page 8 paragraph 96].

Regarding claim 20, Master teaches in response to receiving the first information, executing the instructions for forming the packet and the data portion including the first and second information (i.e., controller inserts cookie information identifying server in header of HTTP response and rewrite data packet for HTTP response) [Fig. 6A, block 238]. Masters does not explicitly teach executing the protocol stack instructions to form a packet. However, Muller teaches executing the protocol stack instructions to process a packet (including a header portion and data portion, and header including at least one header, FIG. 2) (i.e., INC 100 is therefore configured to process packets using one of several protocol stacks compatible with Internet) [see col. 11 lines 53-54 and col. 12 lines 37-45]. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have utilized the step of executing the protocol stack instructions to process a packet of Muller in the process of forming a packet in Masters because such executing the protocol stack instructions to process a packet would

enable protocol headers to be processed by a processor located on the server array controller (or computing device, or NIC), and the higher layer processing which must be performed by the selected node server to be simplified. Thus, the performance of information processing system would be improved.

Regarding claim 21, Master-Muller teaches the second device is a client computing device (i.e., client 10) [Master, Fig. 1, col. 6 lines 34-46].

Regarding claim 22, Master-Muller teaches the operation including maintaining a session (i.e., the HTTP request along with the Cookie is transmitted from the client 10 to the server array controller) [Masters, see col. 12 lines 61-63].

Regarding claim 23, Master-Muller teaches maintaining a session by addressing a subsequent packet to the first computing device (i.e., the HTTP request along with the Cookie is transmitted from the client 10 to the server array controller) [Masters, see col. 12 lines 61-63].

Regarding claim 24, Master-Muller teaches the operation includes modifying state information [Masters, see col. 12 line 64-col. 13 line 24].

Regarding claims 25, 28-30 and 35-36 do not recite or define any new limitation above claim 13, discussed above, same rationale of rejection is applicable.

Claim 26 does not recite or define any new limitation above claim 2, therefore same rationale rejection is applicable.

Claim 27 does not recite or define any new limitation above claim 9, therefore same rationale of rejection is applicable.

Regarding claim 31, Master-Muller teaches the computer-readable medium of claim 25 wherein the first computing device comprises an intelligent network interface card (Muller, NIC, col. 8 lines 22-29).

Claim 32 does not recite or define any new limitation above claim 10 and therefore, the same rationale of rejection is applicable.

Claims 38-39 do not recite or define any new limitation above claim 12 and therefore, the same rationale of rejection is applicable.

Regarding claim 34, Master teaches the computer-readable medium of claim 25 wherein the second information comprises a cookie (i.e., Cookie, col. 5 lines 33-46).

Regarding claim 37, Master-Muller teaches the information processing system of claim 35 wherein the means for executing protocol stack instructions comprises a protocol stack processor (Muller, col. 9 lines 52-55).

Regarding claim 40, Master teaches the information processing system of claim 35 wherein the second information comprises a cookie (i.e., Cookie, col. 5 lines 33-46).

6. Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masters (US 2001/0023442 A1) in view of Muller et al. (Muller) (US 6,453,360 B1) in further view of Admitted Prior Art (APA).

Regarding claim 4, Masters-Muller does not explicitly teach the network protocol is UDP/IP. However, APA teaches the network protocol is UDP/IP (page 8 lines 1-3). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have utilized the UDP/IP protocol of APA in the process of communicating packets in Masters-Muller because it was conventionally employed in the art to provide faster interactive response to a client's request.

Regarding claim 16, Masters-Muller does not explicitly teach the network protocol is UDP/IP. However, APA teaches the network protocol is UDP/IP (page 8 lines 1-3). Therefore, it would have been obvious to one having ordinary skill in the art at the time

of the invention was made to have utilized the UDP/IP protocol of APA in the process of communicating packets in Masters-Muller because it was conventionally employed in the art to provide faster interactive response to a client's request.

7. Claims 33 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masters (US 2001/0023442 A1) in view of Muller et al. (Muller) (US 6,453,360 B1) in further view of Schmidt (US 202/0133529 A1).

Regarding claim 33, Masters teaches the computer-readable medium of claim 25.

the combination of Masters and Muller does not explicitly teach the second information causes the second computing device to migrate an existing session.

Schmidt teaches method and apparatus for representation and encapsulation of active computing environment (see abstract). Schmidt teaches information causes computing device to migrate an existing session (page 1 paragraph [0012]).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Masters-Muller to migrate an existing session as in Schmidt. One would be motivated to do so to allow an existing session to be migrated closer to a user in order to improve response time (Schmidt, page 1 paragraph [0012]).

Claim 41 does not recite or define any new limitation above claim 33; therefore, the same rationale is applicable.

Response to Arguments

8. Applicant's arguments filed 10/26/2005 have been fully considered but they are not persuasive.

In the remarks, applicant argued in substance that

(A) Prior art does not teach or suggest executing protocol stack instructions to form a data portion of a packet.

As to point (A), Muller does teach executing protocol stack instructions to form a data portion of a packet (i.e., each data portion is processed/formed through a protocol stack. During this processing multiple protocol headers (e.g., TCP, IP, Ethernet) are added to the data portion, col. 2 lines 19-33 and col. 15 lines 1-19).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Oanh Duong whose telephone number is (571) 272-3983. The examiner can normally be reached on Monday- Friday, 2:00PM - 10:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

O.D
January 19, 2006


SALEH NAJJAR
SUPERVISORY PATENT EXAMINER